Next Generation of Aviation Weather and GA Safety Fall FPAW Meeting, October 23, 2014



Melissa K. Rudinger

Vice President
Government Affairs



Weather Technology in the GA Cockpit

- In- Flight Weather
- Datalink
- ADS-B FIS-B
- Nexrad



In-Flight Weather

- Pilots are becoming more reliant on cockpit wx technology
 - In flight weather can be a great tool, but provide a false sense of security
- Pilots often choose to take off and evaluate the weather as they go. At typical GA aircraft speeds, a 200-mile trip can leave a 2-3 hour weather information gap between the preflight briefing and the actual flight
 - Cockpit weather technologies bridge this gap

Datalink and Weather Avoidance Equipment

- Weather datalink equipment uses satellites to transmit weather data such as METARs, TAFs, and NEXRAD radar to the cockpit
- Handheld devices are growing in popularity amongst the GA community





ADS-B

- Flight Information Service-Broadcast (FIS-B) weather information is one of the key GA elements of ADS-B
- For aircraft that are ADS-B in equipped, FIS-B delivers Nexrad radar images, PIREP, METAR, TAF and winds aloft weather reports directly to a cockpit multifunction display



Nexrad

- Radar images are transmitted via data link and provide a vastly better picture of the weather then in the past
 - Critical to note that this information is not realtime. It takes several minutes for the Nexrad ground station to complete the scans necessary to build an image and then additional time to send the image to the aircraft
 - In significant weather, this gap can mean the difference between life and death

What We Teach

 With new technology emerging every day and an increased reliance on decision support tools in Next Gen operations, it is critical that pilots have the tools to become well-versed in the technologies

What we teach:

- Utilizing technology to make smart decisions
- Know before you go mentality is important- becoming competent and confident prior to flying with advanced equipment
- Understanding limitations of your specific equipment, recognizing lag time, and other restrains and planning accordingly
- Never become distracted by technology
 - Core duties of flight always come first

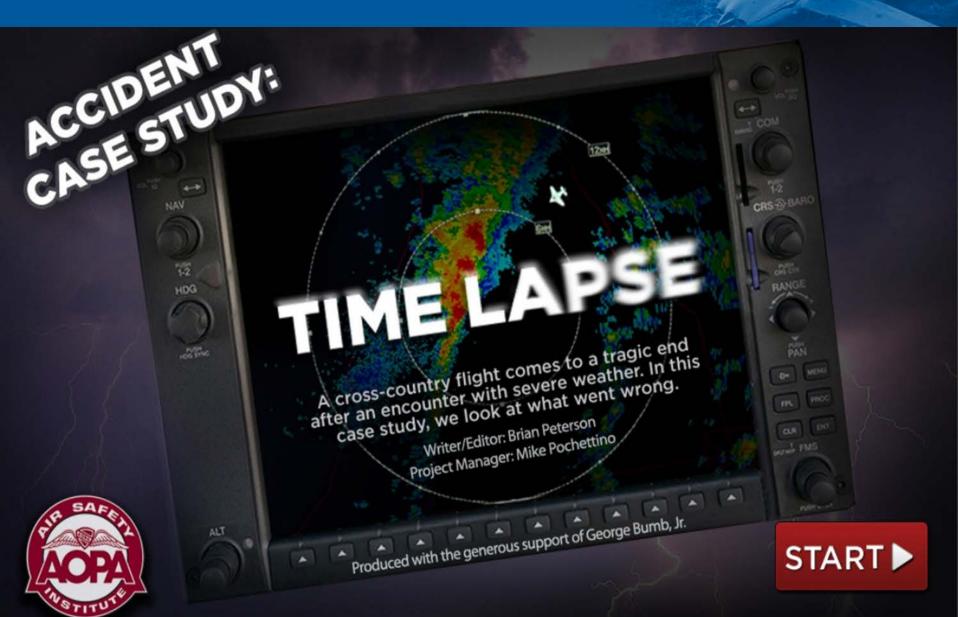
Air Safety Institute Interactive Learning



Decision 1

- Continue on course through precipitation
- Ask ATC for deviations around precip ahead
- Land at Pittsburgh and wait

Learning from others



An analysis of a real accident brought to you by the Air Safety Institute, a division of the AOPA Foundation.